

WHAT IS CLAIMED IS:

1. A color correcting relation extracting method comprising:

5 an image data obtaining step of obtaining image data outputted from an input device for receiving an original image and outputting the image data representative of a received image which is subjected to a color correction for the original image;

10 a first conversion step of converting the image data obtained by said image data obtaining step into coordinate values of a colorimetry color space describing a measured value of a color, corresponding to a color of an image obtained when the image based on the obtained image data is outputted from an output device for outputting the image based on the image data, in accordance with characteristics of an image output of the output device; \ and

20 coordinates obtaining step for obtaining the coordinate values of the colorimetry color space corresponding to the color of the original image, said coordinates obtaining step being not restricted in sequence of the step to be executed,

25 whereby an association between colors before and after the color correction is extracted.

2. A color correcting relation extracting method

according to claim 1, wherein said coordinates obtaining step includes a characteristic obtaining step of obtaining a characteristic value capable of being converted into the coordinate values of the colorimetry color space,

5 corresponding to a color of the original image, and a second conversion step of converting the characteristic value obtained by the characteristic value obtaining step into the coordinate values of the colorimetry color space.

10 3. A color correction method comprising:

a color correction conversion definition producing step including a first partial step of obtaining image data outputted from an input device for receiving an original image and outputting the image data representative of a
15 received image which is subjected to a color correction for the original image, a second partial conversion step of converting the image data obtained by said first partial step into coordinate values of a colorimetry color space describing a measured value of a color, corresponding to a
20 color of an image obtained when the image based on the obtained image data is outputted from an output device for outputting the image based on the image data, in accordance with characteristics of an image output of the output device, and a third partial step for obtaining the
25 coordinate values of the colorimetry color space corresponding to the color of the original image,

whereby said color correction conversion

definition producing step produces a color correction conversion definition defining an association between coordinate values of the colorimetry color space corresponding to colors before and after the color correction;

5 a first device conversion step of using a conversion definition according to characteristics of image receipt or image output by a first device for receiving an image to obtain image data or outputting an image based on image data, to convert coordinate values in a first color space describing image data for the first device into coordinate values of the colorimetry color space independent of the device;

10 a color correction conversion step of using the color correction conversion definition produced in said color correction conversion definition producing step to convert coordinate values of the colorimetry color space corresponding to colors before the color correction into coordinate values of the colorimetry color space corresponding to colors after the color correction; and

15 a second device conversion step of using a conversion definition according to characteristics of image receipt or image output by a second device for receiving an image to obtain image data or outputting an image based on image data, to convert coordinate values of the colorimetry color space into coordinate values in a second color space describing image data for the second device,

whereby the image data defined by the first color space is converted into image data defined by the second color space, said image data being representative of an image in which the color correction is applied to an image
5 based on the image data defined by the first color space.

4. A color correction method according to claim 3, wherein said color correction conversion definition producing step produces, as said color correction
10 conversion definition, a color correction conversion definition defining an association between coordinate values within an area of original image colors reproducible as colors of the original image of the colorimetry color space and coordinate values within an area of reproduced
15 image colors reproducible as colors of the reproduced image of the colorimetry color space,

before execution of the color correction conversion step, there is carried out a first gamut conversion step in which coordinate values within an area
20 of colors reproducible as colors of an image received or outputted by the first device of the colorimetry color space are converted into coordinate values within the area of the original image colors, and

after execution of the color correction conversion step, there is carried out a second gamut conversion step
25 in which coordinate values within the area of the reproduced image colors are converted into coordinate

values within an area of colors reproducible as colors of an image received or outputted by the second device of the colorimetry color space.

5 5. A color correction method according to claim 3, wherein said color correction conversion definition producing step produces, as said color correction conversion definition, a color correction conversion definition defining an association between coordinate
10 values within a predetermined area of the colorimetry color space,

before execution of the color correction conversion step, there is carried out a first gamut conversion step in which coordinate values within an area
15 of color reproducible as colors of an image received or outputted by the first device of the colorimetry color space are converted into the coordinate values within the predetermined area, and

after execution of the color correction conversion
20 step, there is carried out a second gamut conversion step in which the coordinate values within predetermined area are converted into coordinate values within an area of colors reproducible as colors of an image received or
25 outputted by the second device of the colorimetry color space.